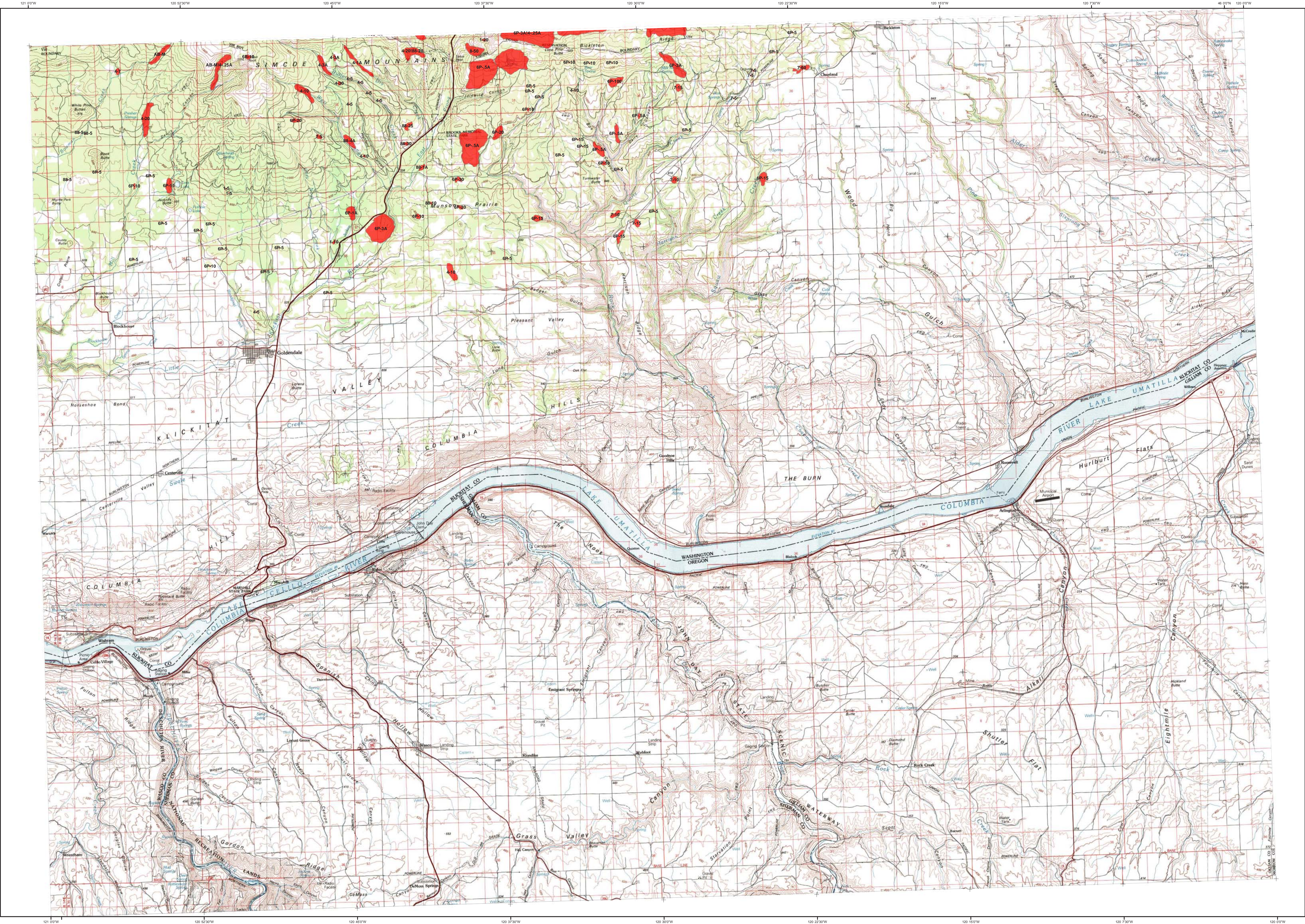


****DRAFT****

2003 Aerial Insect and Disease Survey

Goldendale - Quad 5G



Defoliators	
Code	Damaging Agent
AS	Spring spruce
BB	Western blackheaded budworm
BM	Modoc budworm
BP	Sugar pine tortrix
BS	Western spruce budworm
BY	Dynastid light/Lophodermella
CH	Larch
HL	Western hemlock looper
LG	Green striped forest looper
LL	Larch looper
LS	Black pine leaf scale
MD	Douglas-fir budmoth
ML	Larch budmoth
MM	Douglas-fir needle midge
MS	Spruce budmoth
ND	Needle miner
NJ	Needle miner
NK	Needle miner
NL	Needle miner
NM	Needle miner
NP	Needle miner
NS	Needle miner
NT	Needle miner
OW	Needle miner
OL	Western oak looper
PB	Pine butterfly
PC	Pine needle cast
PH	Phantom hemlock looper
PM	Pandora moth
PN	Pine needles/needle miner
PS	Pine needle scale
RA	Needle cast
SC	Spine mite
S	Sawfly
SD	Sawfly
SH	Sawfly
SK	Sawfly
SL	Sawfly
SM	Sawfly
SNC	Swiss needle cast
SP	Sawfly
SV	Sawfly
TC	Tent caterpillar, alder
TM	Douglas-fir tussock moth
TS	Tent caterpillar, aspen

Mortality Agents	
Code	Damaging Agent
1	Douglas-fir beetle
2	Douglas-fir engraver
3	Spruce beetle
4	Fir engraver
5	Western mountain bark beetle
6J	Mountain pine beetle
6K	Mountain pine beetle
6L	Mountain pine beetle
6M	Mountain pine beetle
6N	Mountain pine beetle
6O	Mountain pine beetle
7	IPS spp.
8	Western pine beetle
8A	Western pine beetle
8B	Western pine beetle
8C	Western pine beetle
8D	Western pine beetle
8E	Western pine beetle
8F	Western pine beetle
8G	Western pine beetle
8H	Western pine beetle
8I	Western pine beetle
8J	Western pine beetle
8K	Western pine beetle
8L	Western pine beetle
8M	Western pine beetle
8N	Western pine beetle
8O	Western pine beetle
8P	Western pine beetle
8Q	Western pine beetle
8R	Western pine beetle
8S	Western pine beetle
8T	Western pine beetle
8U	Western pine beetle
8V	Western pine beetle
8W	Western pine beetle
8X	Western pine beetle
8Y	Western pine beetle
8Z	Western pine beetle
9	Basal damage
10	Flatheaded wood borer
11	Black stain root disease
12	Port Orford cedar root disease
13	Root disease
14	Water damage

Other Damaging Agents	
Code	Damaging Agent
AB	Balsam woolly adelgid
AC	Cooty spruce gall adelgid
AD	Leaf discoloration
AE	Pine-needle pines
AF	Dying hemlock
AG	Fire
AH	Gouly pitch midge
AI	Hail
AJ	Hardwood decline
AK	Areas not flown
AL	No damage detected
AM	Pacific madrone decline
AN	Leaf rust in poplars
AO	Red ball
AP	Slide
AQ	Unknown defoliation
AR	Unknown mortality
AS	Water damage
AT	Windthrow
AU	Winter damage
AV	All species
AW	All species
AX	All species
AY	All species
AZ	All species

****DRAFT****

USGS 100K Quad - Goldendale; 5G

2003 Aerial Insect and Disease Detection Survey

Mapscale: 1:100,000

Date: August 22, 2003

Legend

Draft 2003 insect and disease survey data

Vicinity Map

Map base data is from the National Geographic TOPO! series for Oregon and Washington.

North Arrow

How the Aerial Surveys are Conducted

Data represented on this map are based on trees visibly affected by forest insects and diseases detected and recorded during aerial survey flights conducted by the USDA Forest Service, the Washington Department of Natural Resources and the Oregon Department of Forestry. Observers have just a few seconds to recognize the color difference between healthy and damaged trees of different species; diagnose causal agents correctly; estimate intensity; delineate the extent of damage; and precisely record this information on a georeferenced, digital map. Air turbulence, cloud shadows, distance from aircraft, haze, smoke and observer experience can all affect the quality of the survey. These data summaries provide an estimate of conditions on the ground and may differ from estimates derived by other methods.

The aerial survey provides information on the current status for many causal agents, and is important when examining insect activity trends by comparing historical and current survey data over large areas.

Overview surveys are a 'snap shot' in time and therefore may not be timed to accurately capture the true extent or severity of a particular disturbance activity. Specially designed surveys with modified flight patterns and timing may be conducted to more accurately delineate the extent and severity of a particular disturbance agent. Special surveys, such as Swiss needle cast surveys, are conducted when resources are available to address situations of sufficient economic, political or environmental importance.

DIRECT ALL INQUIRIES TO:

Washington State Department of Natural Resources
Resource Protection
Forest Health
1111 Washington St. SE
Olympia, WA 98504

OR --

Oregon Department of Forestry
Forest Health Management
2600 State Street
Salem, OR 97310

OR --

USDA Forest Service, Region 6
Natural Resources
Forest Health Protection
PO Box 3623
Portland, Oregon 97208

****DISCLAIMER****

The insect and disease data presented should only be used as an indicator of insect and disease activity, and should be ground-checked for precise location, extent, severity and causal agent.

Color coded polygons show locations where trees were recently killed or defoliated. Intensity of damage is variable and not all trees within coded polygons are dead or defoliated.

The cooperators reserve the right to correct, update, modify or replace GIS products without notice. Using this map for purposes other than those for which it was intended may yield inaccurate or misleading results.